Page 3, replace the paragraph beginning at line 11 with the following paragraph:

Potato and *Arabidopsis* have been considered to be non-thermogenic plants. However, the expression of StUCP and AtPUMP have been induced by low temperature. Therefore, it has been suggested that these genes are involved in heat production (Laloi et al., 1997; Maia et al., 1998).

line 26, replace the heading with the following new heading:

Summary of the Invention

Page 4, replace the paragraph beginning at line 23 with the following paragraph:

Fig. 3 compares the alignment of amino acid sequences of SfUCPA (SEQ ID No. 2) and SfUCPB (SEQ ID No. 4), together with potato UCP (StUCP) (SEQ ID No. 5), *Arabidopsis* UCP (AtPUMP) (SEQ ID No. 6) and human UCP (human UCP 1, 2 and 3 corresponding to SEQ ID Nos. 7, 8 and 9, respectively). The asterisks (*) attached under the sequences indicate the same amino acid sequence, and the dot (.) indicates the conservative change in all of the sequences. The boldface indicates the same sequence between SfUCPA (SEQ ID No. 2) and SfUCPB (SEQ ID No. 4). The gap introduced to optimize the sequence alignment is indicated by a dash (-). The alignment was made using a CLUSTAL W program. The characteristic domains of energy transfer proteins typical of mitochondria are surrounded by a square. The shaded bars (I~VI) above the upper sequence show estimated transmembrane domains.

Page 5, line 25, replace the heading with the following new heading:

Description of the Preferred Embodiments

Page 10, replace the paragraph beginning at line 28 with the following paragraph:

The total RNA was extracted from the spadix of skunk cabbage (*Symplocarpus foetidus*) and the complete RNA was determined on 1.0% agarose gel electrophoresis (Ito et al., 1999). Using a mRNA isolation kit (Pharmacia), a clone associated with the UCP gene family was isolated from the purified poly(A)$^+$RNA by RT-PCR. The first strand cDNA was prepared by annealing 20 pmol of cDNA primed primer (5'-TTTTTTTTTTTTTTTTTTTTTTTT-3') (SEQ ID No. 10) into poly(A)$^+$RNA (0.1μg), followed by extension with 10 units of reverse transcriptase (New England Biolab) at 37°C for 30 minutes in 20μl of 1xRT buffer containing 10mM 1,4-dithiothreitol and 0.5mM dNTP. The composition of the reaction solution is as follows.

- 10mM Tris-HCl (pH 8.0);
- 50mM KCl;
- 1.5mM $MgCl_2$;
- 4mM dNTP;
- 0.2 unit of EX Taq polymerase (Takara); and
- 10pmol of two degenerate primers corresponding to the conserved amino acid sequence of the UCP family:

ZF1 (5'-CCIYTIGAYACIGCIAAR-3') (SEQ ID No. 11)

ZR1 (5'-ACWTTCCAISYICCIAWIC-3') (SEQ ID No. 12).

Page 13, line 15, delete the entire heading.